

Claims

- 1 (Currently Amended) A method for updating microcode in an automated data storage library, comprising the steps of:

assigning a first LUN to a first device, wherein said first device is an Input/Output (I/O) device of said automated data storage library;

assigning a second LUN to a memory, wherein said memory is memory of said I/O device;

wherein said first LUN and said second LUN are separate, and wherein said first LUN processes I/O commands, and said second LUN processes microcode update commands;

said first device receiving one or more commands;

said first device obtaining a LUN address from each of said one or more commands; and

in response to said LUN address obtained from each of said one or more commands being equal to said first LUN, processing each of said one or commands as input/output commands of said first device; and

in response to said LUN address obtained from each of said one or more commands being equal to said second LUN, said first device;

receiving a prepare for microcode update command, and placing said first device in an operational state to receive said update of said microcode;

storing said microcode in said memory using said LUN address assigned to said second LUN ~~updating said microcode in said memory using said LUN address assigned to said second LUN~~ by processing each of said one or more commands, and in response, updating said stored microcode in said first device; and

receiving at least one of a verification command and an operational test command to verify that said microcode has been updated.

- 2 (Cancelled).
- 3 (Cancelled).
- 4 (Currently Amended) The method of claim 13, wherein said placing said first device ~~is in an~~ operational state to receive said update of said microcode further comprises:
- not accepting any new commands for processing;
 - completing all current commands; and
 - placing movable components at a rest position.
- 5 (Currently Amended) The method of claim 1, wherein said processing each of said one or more commands to update said microcode further comprises:
- overwriting said a memory associated with said first device with an updated microcode.
- 6 (Currently Amended) ~~An automated data storage library system~~ for updating microcode, comprising:
- a first device addressable by a first LUN, wherein said first device is an Input/Output (I/O) device of said automated data storage library; and
 - a memory addressable by a second LUN, wherein said memory is memory of said I/O device;[.]
- wherein said first LUN and said second LUN are separate, and said first LUN processes I/O commands, and said second LUN processes microcode update commands and wherein said first device receives one or more commands, obtains a LUN address from each of said one or more commands; ~~and~~
- in response to said LUN address obtained from each of said one or more commands being equal to said first LUN, said first device processes each of said one or commands as input/output commands of said first device; and
- in response to said LUN address obtained from each of said one or more commands being equal to said second LUN, said first device:
- receives a prepare for microcode update command, and places said first device in an operational state to receive said update of said microcode;
 - stores said microcode in said memory using said LUN address assigned to said second LUN ~~updating said microcode in said memory~~

~~using said LUN address assigned to said second LUN by processing each of said one or more commands, and in response, updates said stored microcode in said first device; and~~

receives at least one of a verification command and an operational test command to verify that said microcode has been updated.

- 7 (Original) The system of claim 6, further comprising:
a host, wherein said host sends microcode update commands to said first device.
- 8 (Original) The system of claim 6, further comprising:
a host; and
a device interface coupled to said host, wherein said device interface receives commands from said host and transfers said commands to LUN addressable components.
- 9 (Original) The system of claim 6, wherein said memory is an Electrically Erasable Programmable Read Only Memory.
- 10 (Original) The system of claim 6, wherein said memory is coupled to said first device.
- 11 (Original) The system of claim 6, further comprising
an accessor, wherein said memory is coupled to said accessor.
- 12 (Original) The system of claim 6, further comprising:
a second device removably attached to said first device, wherein said memory is coupled to said second device.
- 13 (Original) The system of claim 6, further comprising:
a controller for operating said first device, wherein said memory is coupled to said controller.
- 14 (Cancelled).
- 15 (Currently Amended) An article of manufacture comprising a computer readable medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform method steps for updating microcode of a first device of an automated data storage library assigned to a first LUN, said first device coupled to a memory assigned to a second LUN, ~~wherein said first LUN and said second LUN are separate,~~ said method comprising the steps of:

said first device receiving one or more commands, wherein said first device is an Input/Output (I/O) device, said memory is memory of said I/O device, said first LUN and second LUN are separate, and wherein said first LUN processes I/O commands, and said second LUN processes microcode update commands;

said first device obtaining a LUN address from each of said one or more commands; ~~and~~

in response to said LUN address obtained from each of said one or more commands being equal to said first LUN, processing each of said one or commands as input/output commands of said first device; and

in response to said LUN address obtained from each of said one or more commands being equal to said second LUN, said first device:

receiving a prepare for microcode update command, and placing said first device in an operational state to receive said update of said microcode;

storing said microcode in said memory using said LUN address assigned to said second LUN ~~updating said microcode in said memory using said LUN address assigned to said second LUN~~ by processing each of said one or more commands, and in response, updating said stored microcode in said first device; and

receiving at least one of a verification command and an operational test command to verify that said microcode has been updated.

16 (Cancelled).

17 (Cancelled).

18 (Currently Amended) The article of manufacture of claim 1547, ~~wherein said~~ wherein said placing said first device ~~is in an~~ operational state to receive said update of said microcode further comprises:

not accepting any new commands for processing;

completing all current commands; and

placing movable components at a rest position.